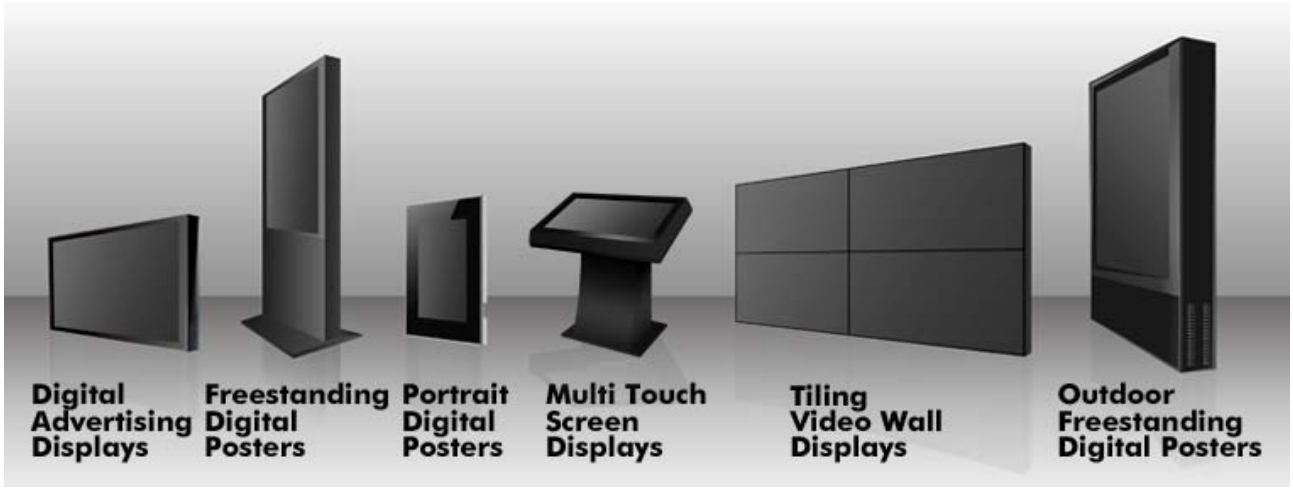
Freestanding Infrared Multi Touch Screen Display

User's Manual

Manual Version LHD-T1.1

Our Full Product Range



Safety Instructions

- Please keep the display away from any heat sources such as radiators or direct sunlight. Place the display in a stable and well-ventilated place.
- Please handle with care as product contains glass.
- The holes or openings on the display are designed for ventilation. Do not cover or block the ventilation holes or openings.
- Remove protective covering from the screen before you use the display.
- As the display surface is vulnerable to scratches, avoid touching the surface with sharp pen point.
- Shut off the power supply before cleaning. Use a soft lint-free cloth instead of a tissue to wipe the screen.
- You may use a glass cleaner to clean the product as required. However, never spray the cleaner directly onto the display surface.
- Do not attempt to repair this product yourself! Improper disassembly of the product will invalidate the warranty and could be dangerous.

If you have a problem that cannot be solved using the "Troubleshooting" guidelines, please contact your supplier.

Quick Start Guide (Windows 7)

This section of the guide allows quick setup and use of the unit. Please refer to the main part of the User Guide for full information on use of the unit.

Please follow the steps detailed below:

1. Connect your PC to the mains via the power outputs located inside the unit (using either C6 or C14 connectors) and ensure that there is a mouse connected to it.
2. Plug in the unit's power supply to the mains outlet – this should power on both PC and screen.
3. Connect the screen to the PC via the VGA Cable and link the screen's Infrared touch sensors to the PC via the USB cable (as shown below).

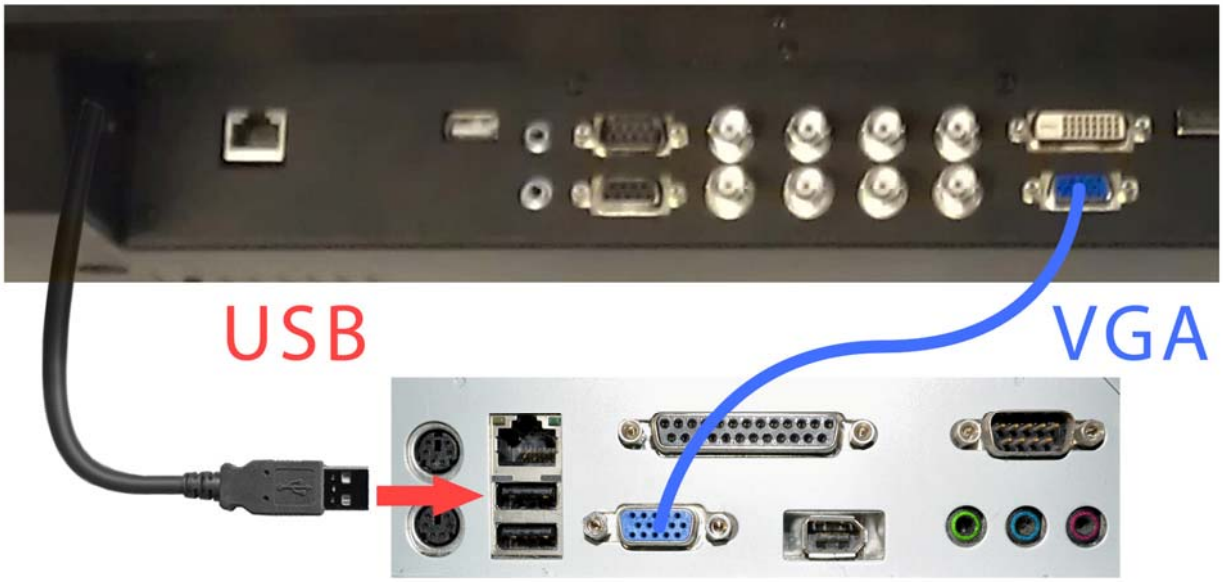


Figure 1 Screen to PC Connections

4. Access the display options from your Control Panel or right-click on your Desktop and choose "Screen resolution".
5. Select the "Orientation" dropdown menu then click on "Portrait (flipped)".
6. Click "OK" and your screen contents and operations will now be rotated 90° clockwise.
7. You may be asked "Do you want to keep these display settings?" click on "Keep changes".
8. The screen should now be acting as a monitor and allowing you to use your finger as a mouse on the screen displaying the PC's contents.

Quick Start Guide (Windows XP)

This section of the guide allows quick setup and use of the unit. Please refer to the main part of the User Guide for full information on use of the unit.

Please follow the steps detailed below:

1. Connect your PC to the mains via the power outputs located inside the unit (using either C6 or C14 connectors) and ensure that there is a mouse connected to it.
2. Plug in the unit's power supply to the mains outlet – this should power on both PC and screen.
3. Now connect the screen to the PC via the VGA Cable ONLY (as shown below).
4. Access the display options from your Control Panel or right-click on your Desktop and choose "Properties" > "Settings" > "Advanced".
5. Click on the tab for your graphics card and find a way of rotating your display 90° clockwise.
6. Insert the CD included into the PC then access the CD-ROM drive and launch the application inside called 'TouchStartup'. Follow the "InstallShield Wizard" to install the software.
7. Launch the 'TouchStartup', it will display the message 'Have not linked equipment'. Then link the screen's Infrared touch sensors to the PC via the USB cable (as shown below).

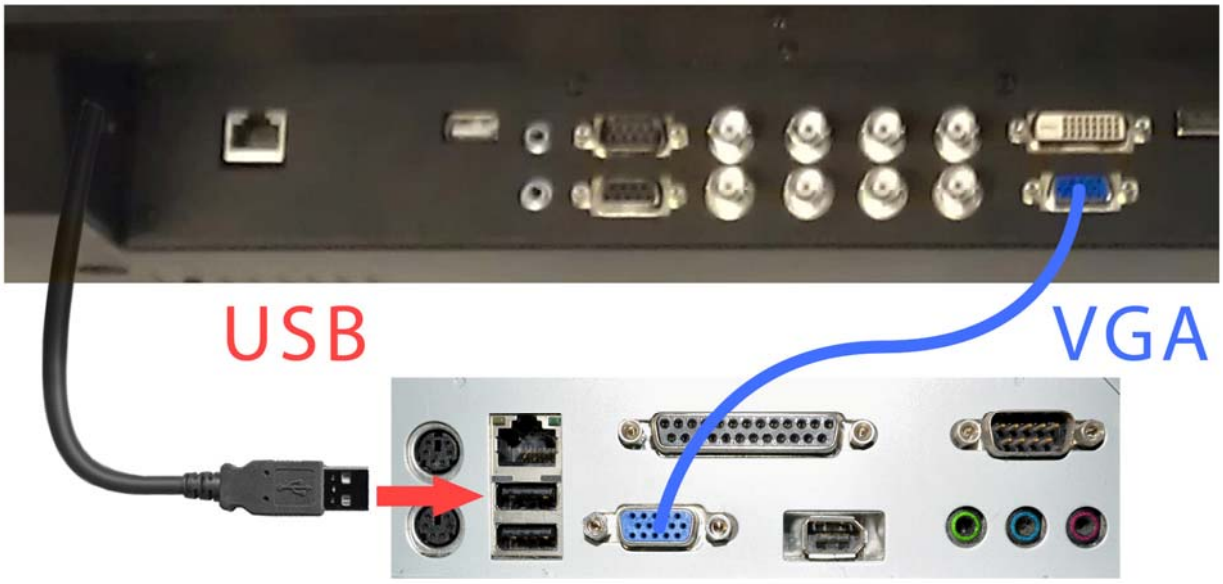


Figure 2 Screen to PC Connections

8. When the message changes to 'Already link equipment', click "Settings" > "Rotation" > "270°" then click "OK".
9. The screen should now be acting as a monitor and allowing you to use your finger as a mouse on the screen displaying the PC's contents.

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1. Introduction

Congratulations on your purchase of our product. Please read carefully and follow all instructions in the manual before first use.

The product should not be exposed to liquids dripping or splashing and no liquid filled objects, such as vases, should be placed on the product.

For user convenience, a number of operations can be performed through the remote control.

Attention:

1. Do not change any default settings unnecessarily
2. Keep the product far away from water during installation and use.

1.1 Box Contents

1xFreestanding Infrared Touch Screen Display

1xVGA Cable

1xUSB Cable

1xCD (User Manual and Software Driver)

1xRemote Control

1.2 Product Overview

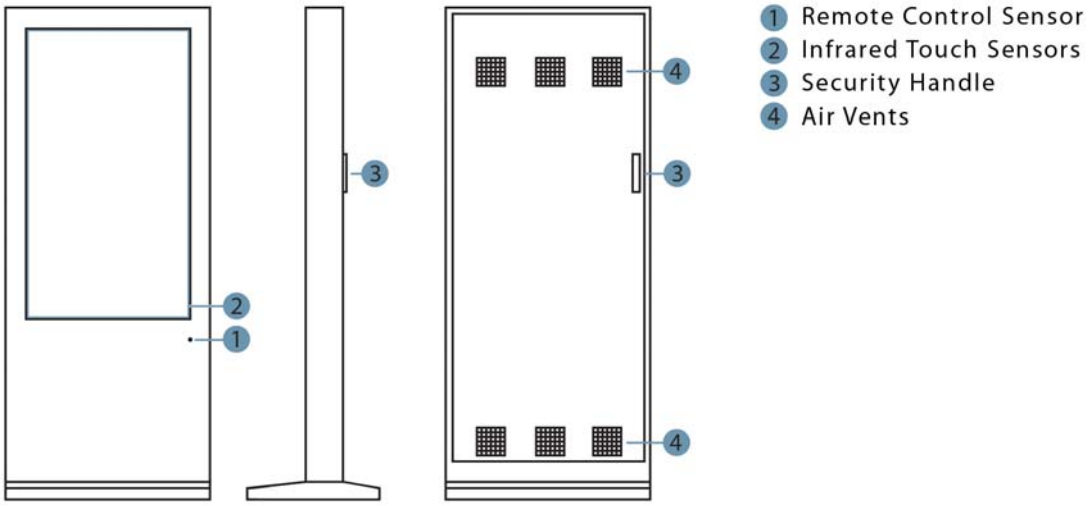


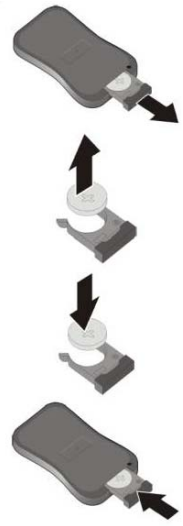
Figure 3 Product Overview

1.3 Remote Control

Button	Function
Power	Power ON or OFF
Mute	Disable audio
⓿-❾	Numbers for time input
-/--	Input multiple numbers
MODE	Signal input select
←	Left navigation button
↑	Up navigation button
→	Right navigation button
↓	Down navigation button
OK	Confirm selection
MENU	Open/close menu settings

1.4 Replacing the Remote Control Battery

1. Open the battery cover
2. Take out the battery box in the right direction as shown in the picture below
3. Remove the used battery
4. Insert the new battery with its terminals corresponding to the indicator
5. Put the cover back in



1.5 Menu Operation

The Menu includes the following sub-menus: Picture, Sound, System, Function and Geometry.

When using the Remote Control please ensure that it is no more than 20cm away from the sensor. This close proximity control feature is to ensure that you only control the desired device if there are others in its vicinity. Press "MENU" to enter Main Menu, press ←→ to select the right sub-menu and ↑↓ to select the desired item, press "OK" to confirm selection. Press → where instructed to confirm section. Press "menu" at any time to go back or exit.

PICTURE	SOUND	SYSTEM	FUNCTION	GEOMETRY

Picture

As with all settings these can be adjusted and changed back to default at any time.

CONTRAST	50	
BRIGHTNESS	50	
COLOR TEMP	<NORMAL>	or WARM/COOL/USER DEFINED
SCALE		
AUTO		
PICTURE MODE	<STANDARD>	or DYNAMIC/SOFT/USER DEFINED

Sound

EQUALIZER	120	50
	500	50
	1.5K	50
	5K	50
	10K	50
BALANCE	0	(LEFT/RIGHT SOUND DISTRIBUTION)
SOUND MODE	<USER>	or STANDARD/MOVIE/MUSIC
SURROUND	<OFF>	or ON

System

Here you can change all of the On Screen Display (OSD) settings such as menu brightness and how long it displays for. This sub-menu also includes the fan settings so you can set what temperature the internal fan activates.

OSD LANGUAGE	<ENGLISH>	or 中文
OSD H-POSITION	50	(HORRIZONTAL POSITION OF THE MENU)
OSD V-POSITION	50	(VERTICAL POSITION OF THE MENU)
OSD DURATION	15	(NUMBER OF SECONDS MENU WILL DISPLAY FOR)
OSD HALFTONE	50	(BRIGHTNESS OF THE MENU)
TEMPERATURE	XX	(INTERAL TEMPERATURE)
FAN ACTIVE	30	(TEMPERATURE AT WHICH FANS BECOME ACTIVE)
RESET	>	(RESETS ALL SETTINGS BACK TO DEFUALT)

Function

TIMER	CURRENT TIME – XX.XX TURN OFF TIME – 00.00 TURN ON TIME – 00.00	<OFF> or ONCE/EVERYDAY
CURRENT X	1	(VIDEO WALL FUNCTION)
CURRENT Y	1	
TOTAL X	1	
TOTAL Y	1	
LEFT EDGE	0	
UP EDGE	0	
RIGHT EDGE	0	
DOWN EDGE	0	

Geometry

H-POSTION
V-POSTION
CLOCK
PHASE

Switching between inputs

One crucial feature that does not appear on the Main Menu is selecting the input source. This is done by first pressing "MODE" and then scrolling down to the desired input source and select by pressing "→".

PC (VGA)
HDMI
DVI
AV1
AV2
YPBPR

1.6 Inputs

VGA – Video Graphics Array Signal Input (RECOMMENDED)

HDMI – High Definition Multimedia Interface Signal Input

DVI – Digital Video Interface

YPbPr – Component Signal Input

Video In (AV) – Composite Signal Input (X2)

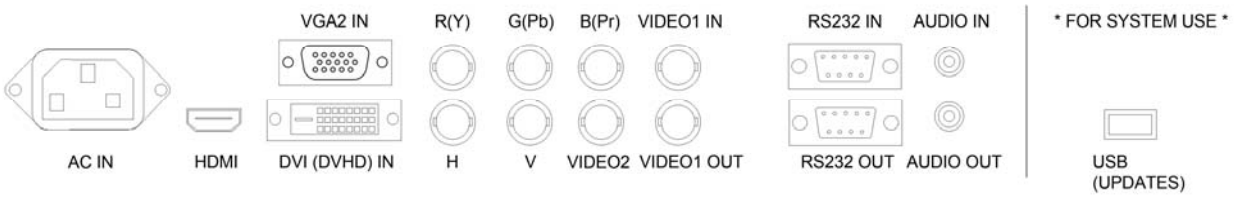


Figure 4 Screen Inputs

2. Set Up

2.1 Connecting to PC

There is space inside the unit for a small form factor PC. As well as being internally powered, the PC must be connected to the touch screen in two ways: visually and interactively. The recommended visual connection is via the VGA Cable (included) meaning that the display acts like a monitor for the PC. The touch function is achieved by linking the Infrared touch sensors around the screen to the PC via the USB Cable inside (DO NOT connect this yet unless you are using a PC with Windows 7 Operating System).

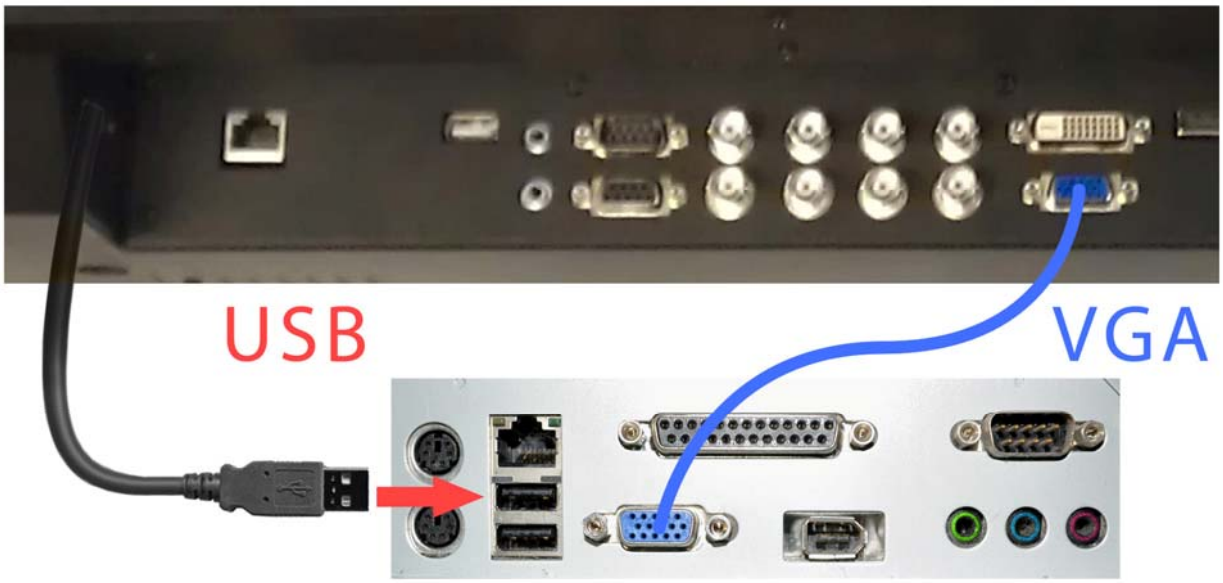


Figure 5 Screen to PC Connections

IMPORTANT: Be sure to connect the PC to the USB port on the side of the input panel and NOT the one adjacent to the other inputs.

Computer	Touch screen	Description
VGA Output	VGA input	Computer drives the video display on the monitor
Touch Input (USB)	Touch Output (USB)	Feedback from the touch monitor to the PC on where has been touched on the screen

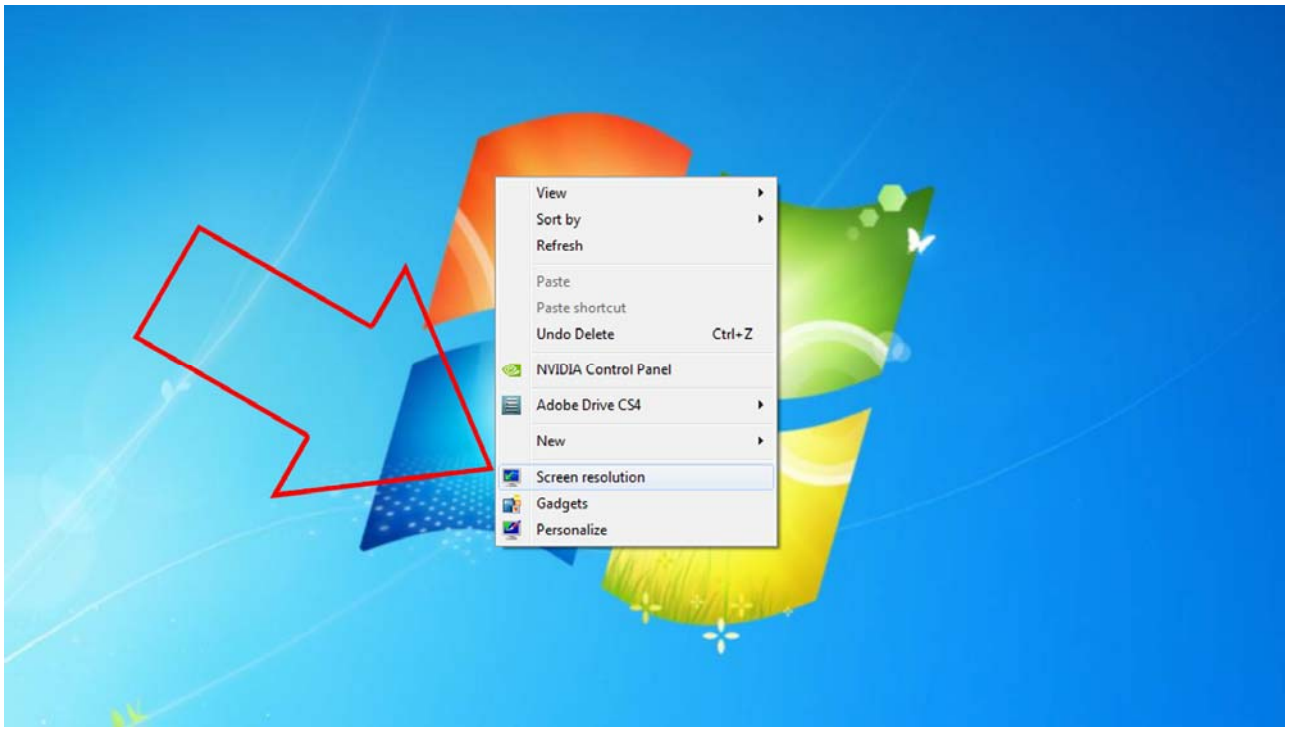
Begin by connecting your PC to the mains via the power outputs located inside the unit (using either C6 or C14 connectors) and ensure that there is a mouse connected to it. Next, Plug in the unit's power supply to the mains outlet – this should power on both PC and screen. Connect the screen to the PC via the VGA cable ONLY (as shown above). Before taking any more steps ensure that the screen is sourcing its display from the PC. This is done by first pressing "MODE" and then scrolling down to the desired input source (PC) and select by pressing "→".

PC (VGA)
HDMI
DVI
AV1
AV2
YPBPR

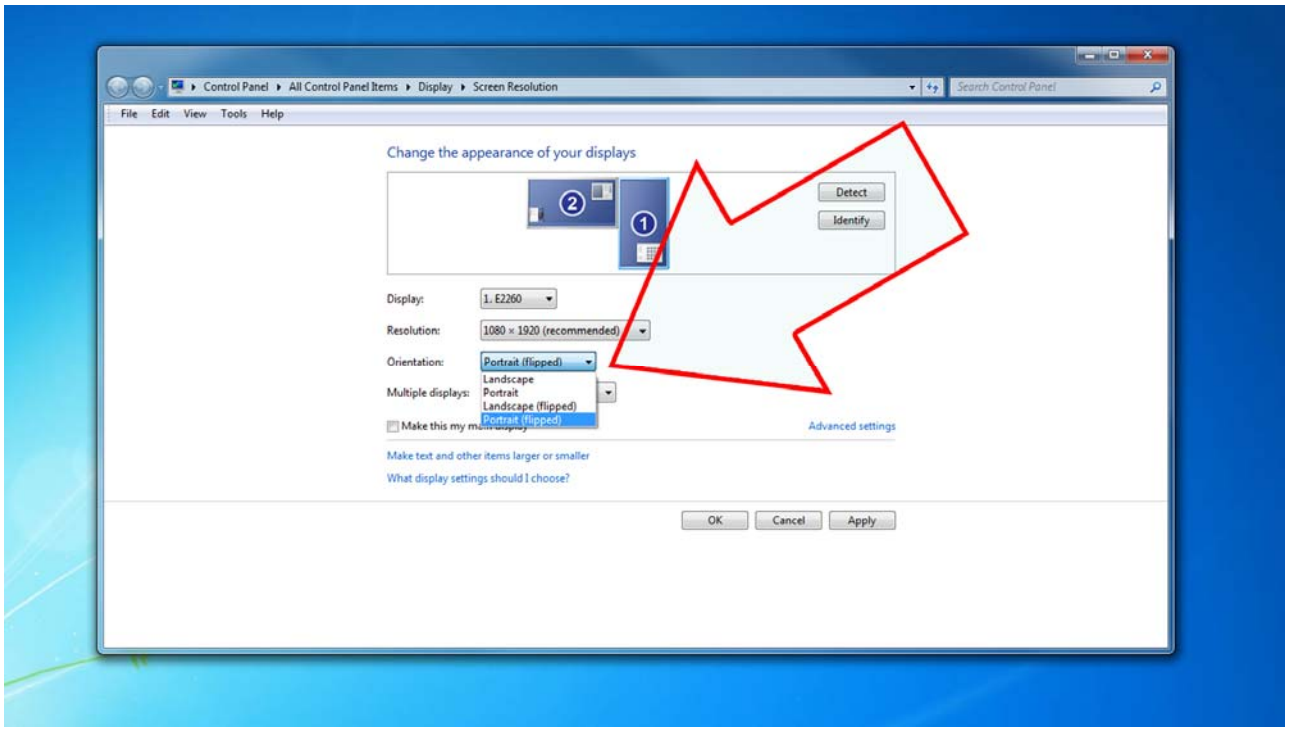
2.2 Changing your display to portrait mode

2.2.1 (Windows 7)

First ensure that you have connected to touch screen to the PC via the VGA cable. Still using your mouse access the display options from your Control Panel or right-click on your Desktop and choose "Screen resolution".

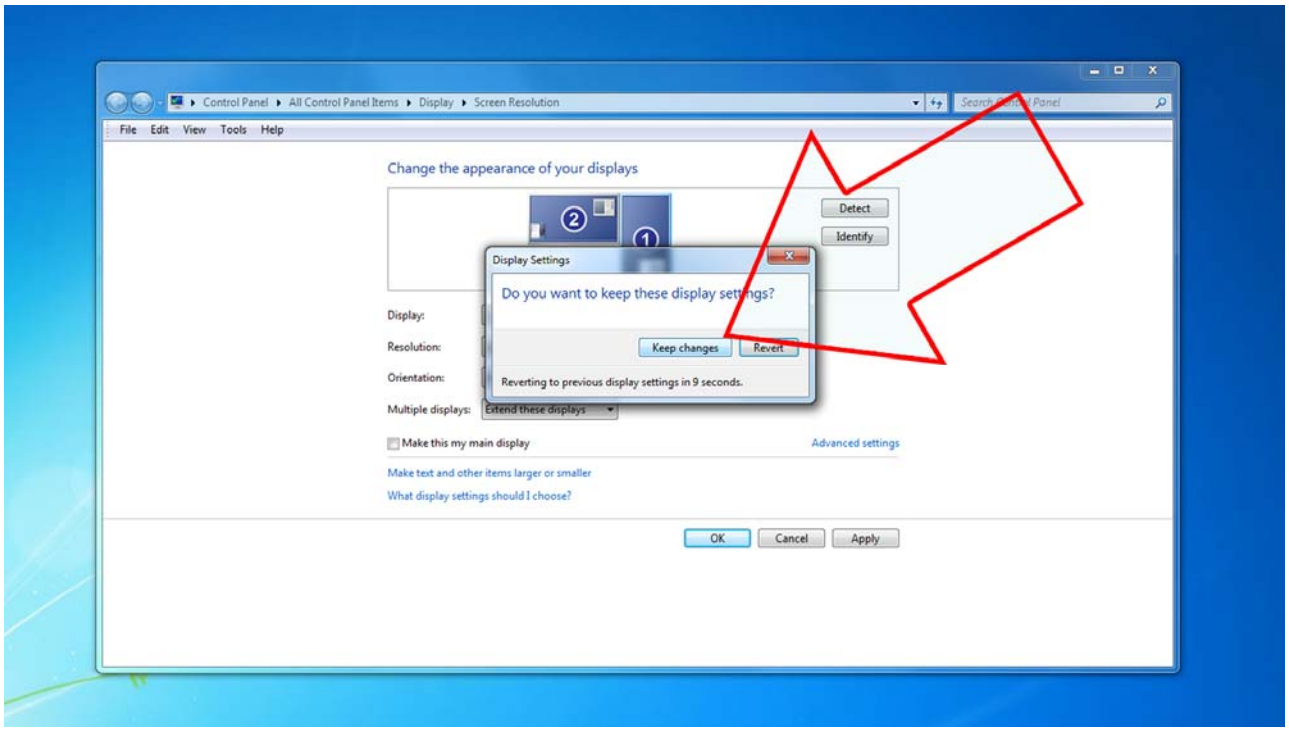


Select the "Orientation" dropdown menu then click on "Portrait (flipped)".



Click "OK" and your screen contents and operations will now be rotated 90° clockwise.

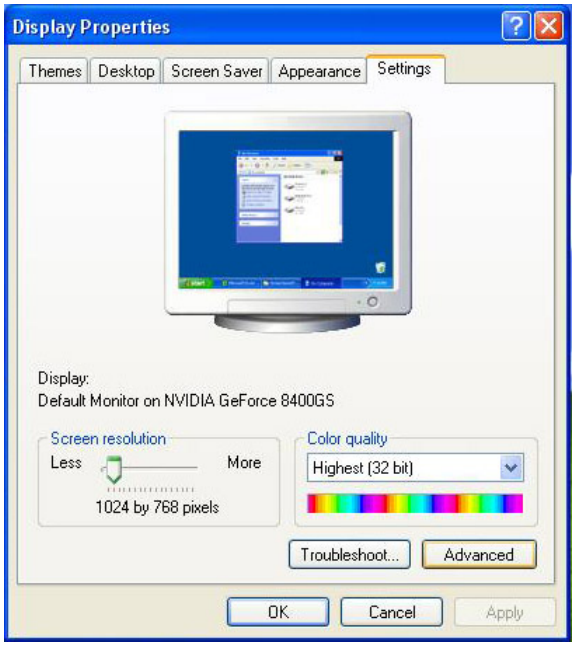
You may be asked "Do you want to keep these display settings?" click on "Keep changes".



2.2.2 (Windows XP)

First ensure that you have connected to touch screen to the PC via the VGA cable. Still using your mouse access the display options by right-clicking on your Desktop and choose "Properties":

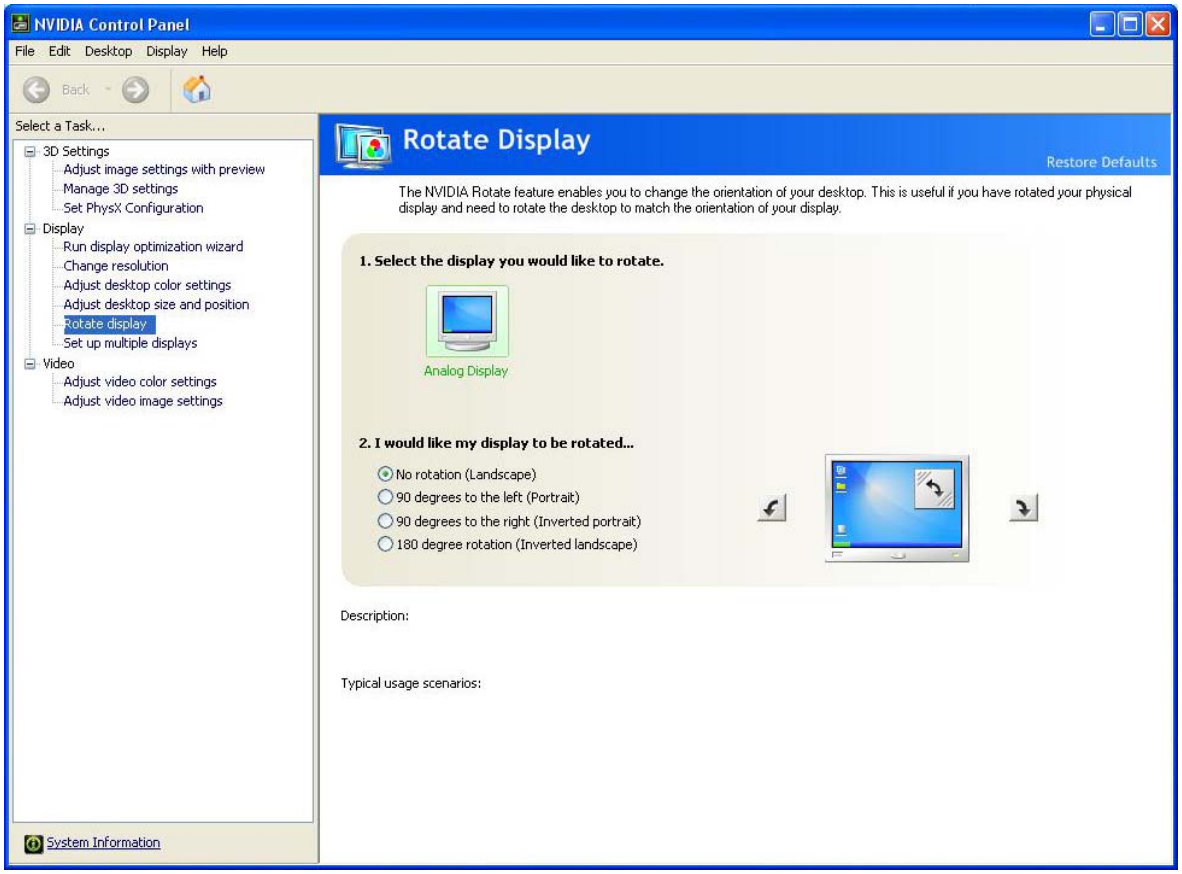
Then click the "Settings" tab:



Now click the "Advanced" button, you can access your graphics card settings:

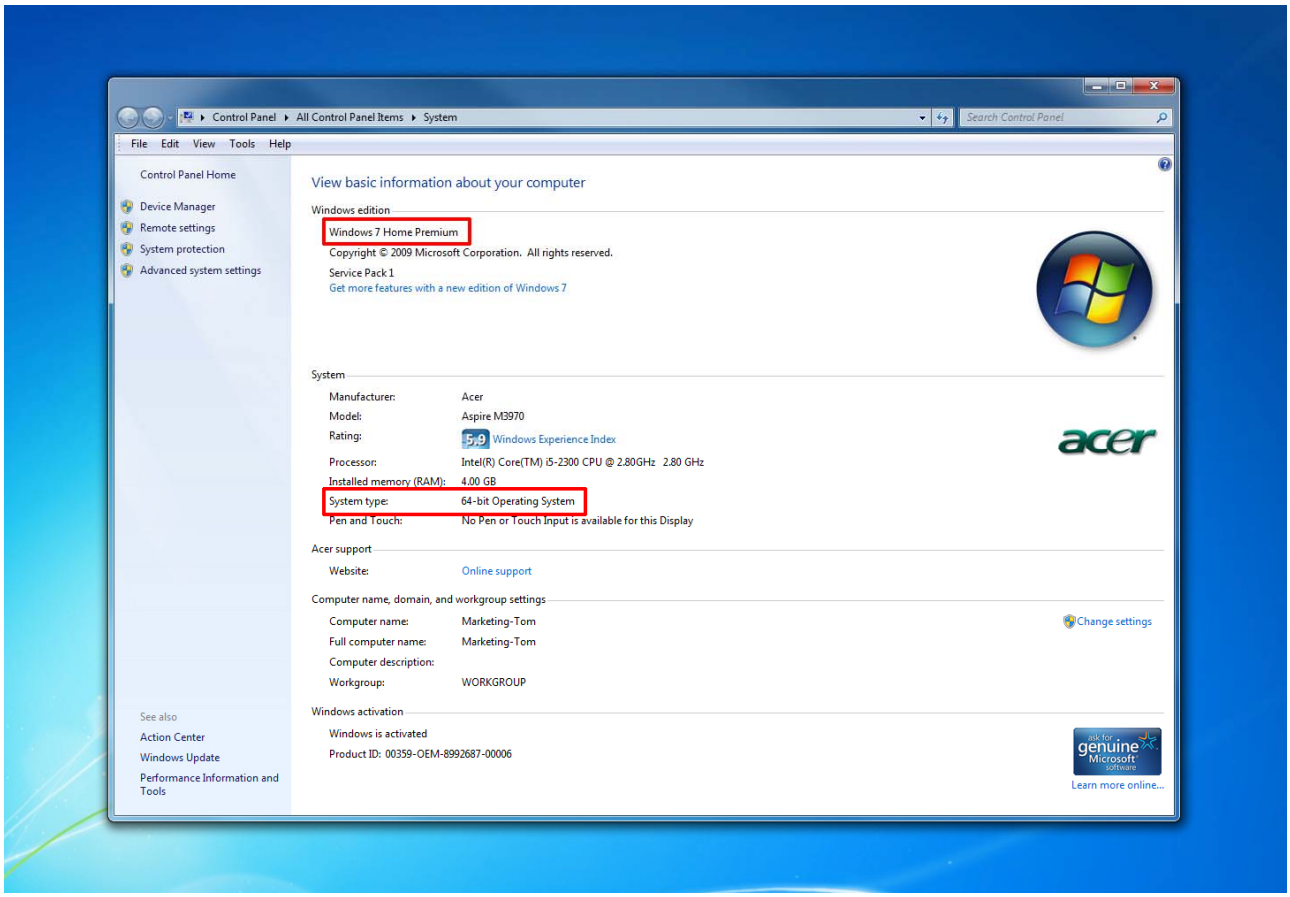
Default Monitor and NVIDIA GeForce 8400GS Properties
General
Adapter
Monitor
Troubleshoot
Color Management
GeForce 8400GS
NVIDIA
Looking for the NVIDIA Display Control Panel?
All of the NVIDIA control panels have been consolidated into a single application, the NVIDIA Control Panel. It can be launched from the Windows Control Panel or by right-clicking on the Windows desktop.
Start the NVIDIA Control Panel
OK
Cancel
Apply

Now you can rotate your display 90° clockwise or 270° anti-clockwise. Each graphics card will have a different method for this, if you are having trouble please read the manual of the graphics card or contact your supplier.


NVIDIA Control Panel
File Edit Desktop Display Help
Back
Select a Task...
3D Settings
Adjust image settings with preview
Manage 3D settings
Set PhysX Configuration
Display
Run display optimization wizard
Change resolution
Adjust desktop color settings
Adjust desktop size and position
Rotate display
Set up multiple displays
Video
Adjust video color settings
Adjust video image settings
System Information
Rotate Display
Restore Defaults
The NVIDIA Rotate feature enables you to change the orientation of your desktop. This is useful if you have rotated your physical display and need to rotate the desktop to match the orientation of your display.
1. Select the display you would like to rotate.
Analog Display
2. I would like my display to be rotated...
No rotation (Landscape)
90 degrees to the left (Portrait)
90 degrees to the right (Inverted portrait)
180 degree rotation (Inverted landscape)
Description:
Typical usage scenarios:

2.3 Installing the touch screen driver (Windows XP only)

The touch screen driver only needs to be installed on a Windows XP Operating System. If you are using a PC with a Windows 7 Operating System you DO NOT need to install the driver and it should run automatically once both VGA and USB connections have been made (see figure 4). Windows 7 also supports the multi touch function; all Windows Operating Systems before Windows 7 can support the single touch function. To find out your operating system and system type click Start>right-click Computer>Properties, which should bring up a window like this:

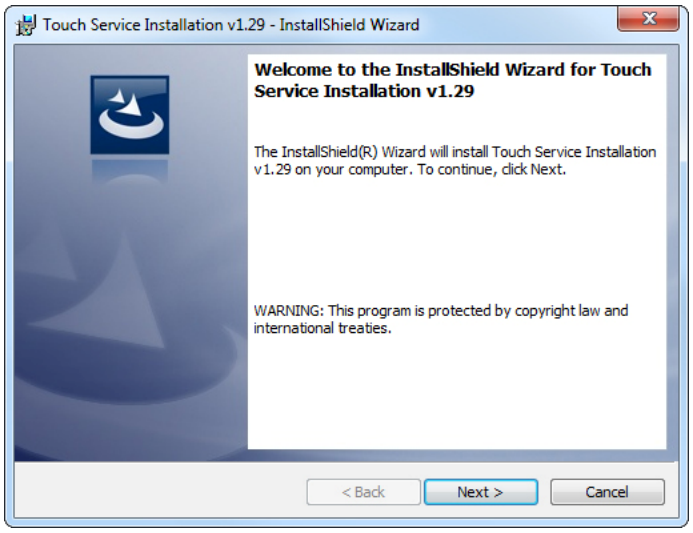


Once you know your PCs operating system type you will know if it needs the driver to be installed and if it supports the multi touch function.

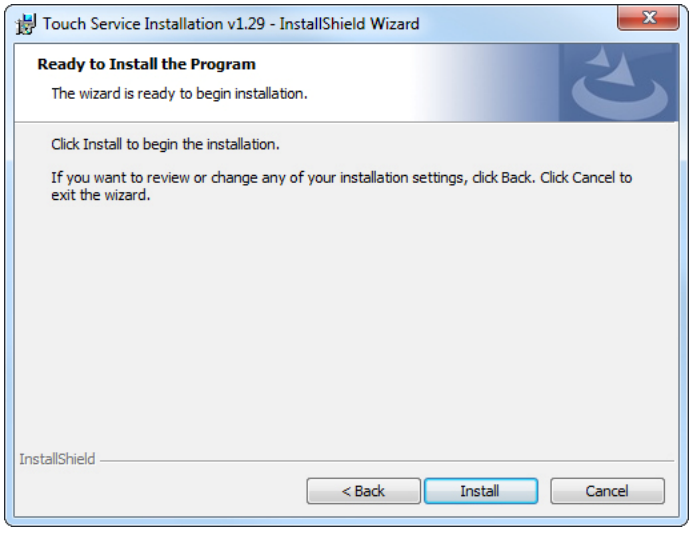
2.3.1 Windows XP Driver Installation

First ensure that you have connected to touch screen to the PC via the VGA cable and you have rotated your display to portrait mode. Insert the CD into the CD-ROM drive on the computer. Using Windows Explorer access the CD-ROM drive and launch the application called "TouchStartup". This will prompt the installation of the touch screen driver that allows you to use your finger like a mouse on the monitor. You will first be greeted with the following message,

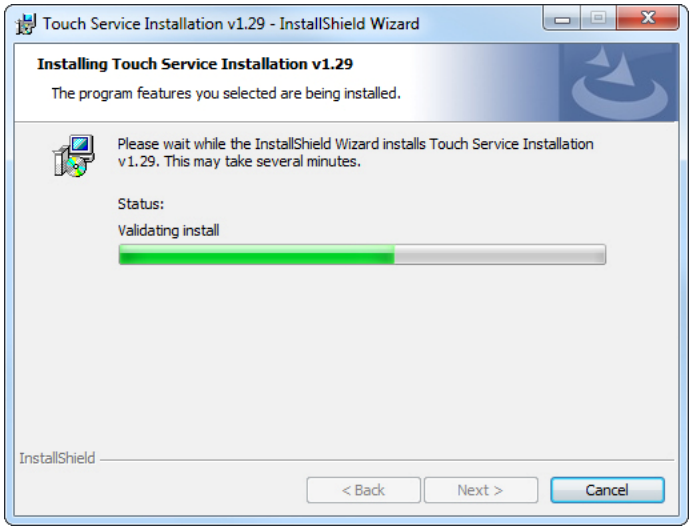
click "Next".


Touch Service Installation v1.29 - InstallShield Wizard
Welcome to the InstallShield Wizard for Touch Service Installation v1.29
The InstallShield(R) Wizard will install Touch Service Installation v1.29 on your computer. To continue, click Next.
WARNING: This program is protected by copyright law and international treaties.
< Back
Next >
Cancel

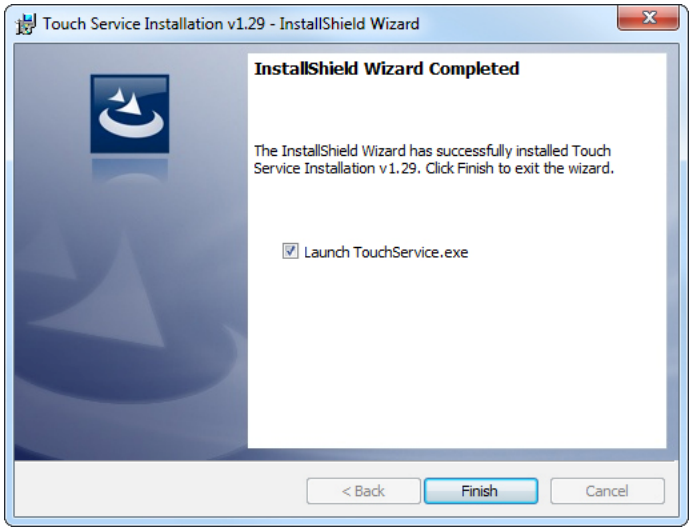
Then you will be presented with this message, click "Install".


Touch Service Installation v1.29 - InstallShield Wizard
Ready to Install the Program
The wizard is ready to begin installation.
Click Install to begin the installation.
If you want to review or change any of your installation settings, click Back. Click Cancel to exit the wizard.
InstallShield
< Back
Install
Cancel

Next you will have to wait a few minutes while the software is installed onto your PC.


Touch Service Installation v1.29 - InstallShield Wizard
Installing Touch Service Installation v1.29
The program features you selected are being installed.
Please wait while the InstallShield Wizard installs Touch Service Installation v1.29. This may take several minutes.
Status:
Validating install
InstallShield
< Back
Next >
Cancel

Once installation is complete you will see the following message, ensure the "Launch TouchService.exe" box is ticked and click "Finish".


Touch Service Installation v1.29 - InstallShield Wizard
InstallShield Wizard Completed
The InstallShield Wizard has successfully installed Touch Service Installation v1.29. Click Finish to exit the wizard.
Launch TouchService.exe
< Back
Finish
Cancel

Now launch the 'TouchStartup' application, it will display the message 'Have not linked equipment'. Next, link the screen's Infrared touch sensors to the PC via the USB cable (as shown below).

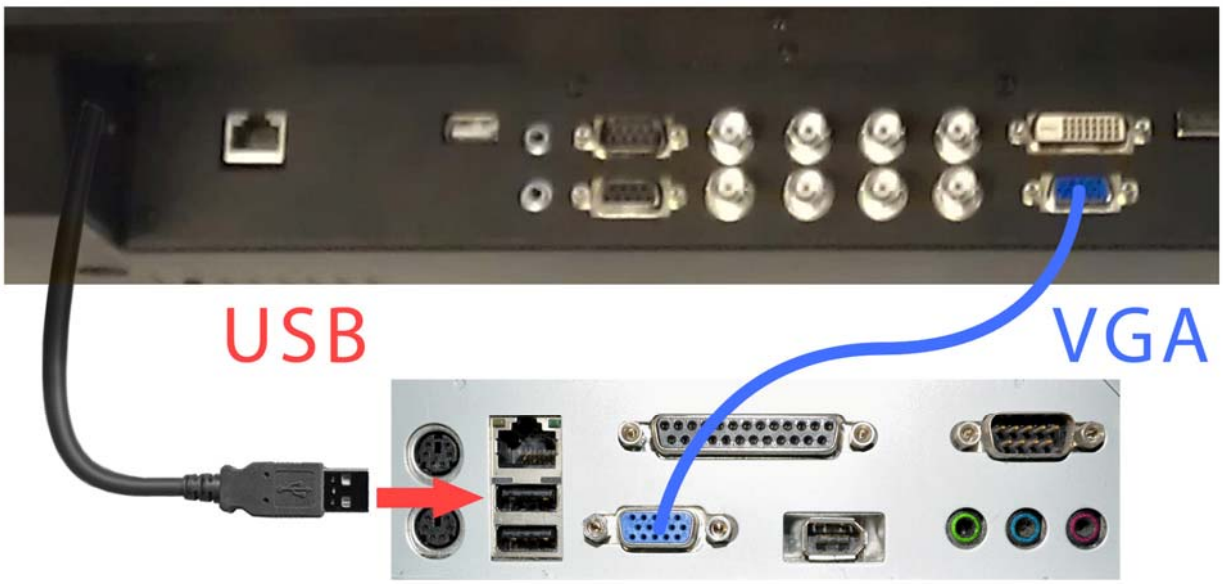
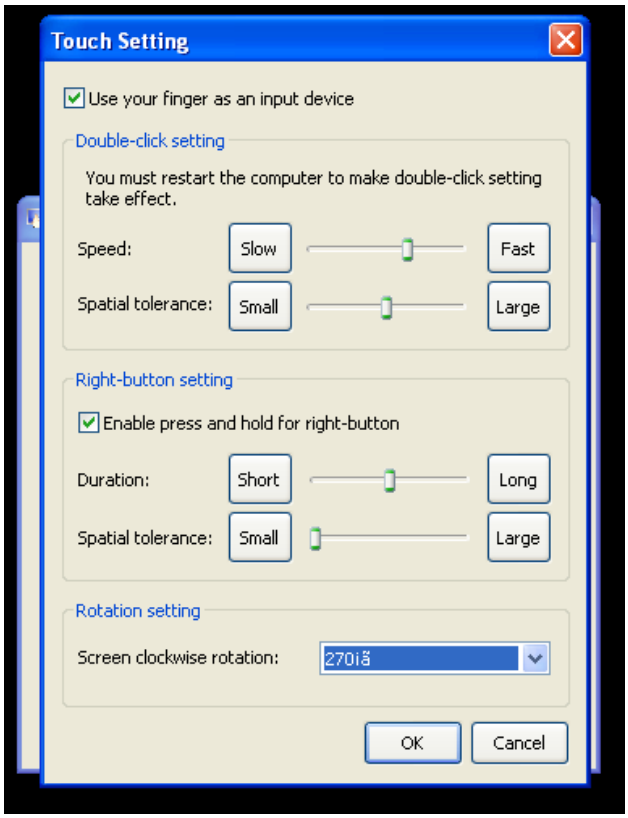


Figure 6 Screen to PC Connections

IMPORTANT: Be sure to connect the PC to the USB port on the side of the input panel and NOT the one adjacent to the other inputs.

In the "Touch Service" software, if the connection has been made successfully the message should read "Already link equipment"; if you have not made a successful connection it will read "Have not

linked equipment". Please wait for a minute to allow the PC to detect the new hardware. Next, still using your mouse, click the "Settings" button then under the "Rotation setting" dropdown menu select "270°" and click "OK".



This should calibrate your screen. Your screen should now be a fully functioning touch screen display.

3. F.A.Qs and Troubleshooting Guide

3.1 My Touch Screen is not displaying what is on my PC

3.1.1 Input Source

Your Touch Screen may be sourcing its display from another input. First connect the Serial Control Box to the screen via the CAT5 port (marked REMOTE KEY BOARD on "Inputs" diagram Figure 2). When using the Remote Control please ensure that it is no more than 20cm away from the sensor on the Serial Control Box. This close proximity control feature is to ensure that you only control the desired device if there are others in the area. Press "MODE" and then scroll down to the desired input source and select by pressing "→".

PC (VGA)
HDMI
DVI
AV1
AV2
YPBPR

3.1.2 Display/monitor button on keyboard

Your keyboard may have a display/monitor button on it, especially if you are using a laptop. If your Touch Screen does not display the content of the PC try hitting this button before contacting your supplier.

3.2 My display turns itself OFF when it's not connected to my PC

3.2.1 Power saving function

If your Touch Screen display is powered ON without being connected to a PC via a visual signal (e.g. VGA, DVI etc.) it will automatically power OFF within a few minutes. If your Touch Screen display

is not being supplied with a video signal it will power OFF so ensure that video signal connection is connected properly. Also you must ensure that the Touch Screen is accessing the correct input. To do this you must first connect the Serial Control Box to the screen via the CAT5 port (marked REMOTE KEY BOARD on "Inputs" diagram Figure 2). When using the Remote Control please ensure that it is no more than 20cm away from the sensor on the Serial Control Box. This close proximity control feature is to ensure that you only control the desired device if there are others in the area. Press "MODE" and then scroll down to the desired input source and select by pressing "→".

PC (VGA)
HDMI
DVI
AV1
AV2
YPBPR

3.3 My screen is displaying video signal but touch function is disabled

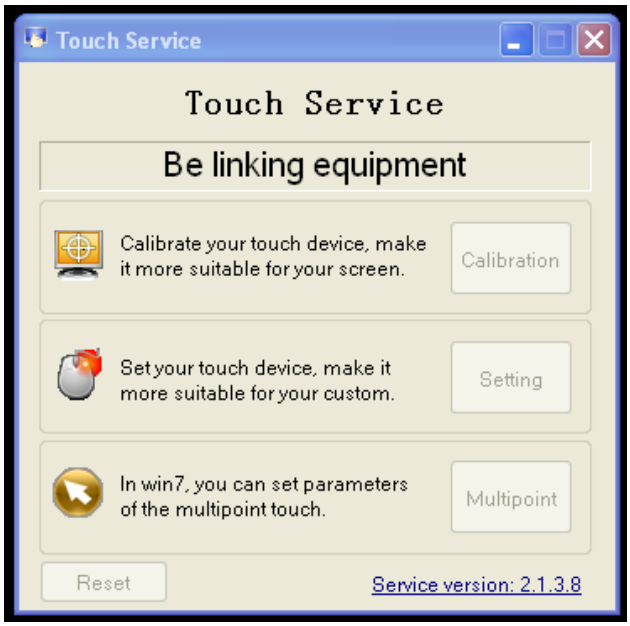
Please ensure the Touch Screen is connected to the PC via the USB Cable. Go though the steps in Section 2.1 to do this correctly.

3.4 My Touch Service software is displaying the message "Have not linked equipment" even though I have.

If you are using a Windows XP PC and you have installed the driver software it should be able to detect the new hardware once you have connected it via the USB cable. If installation is compete and connections have been made you should NOT see the following:

Touch Service
Touch Service
Have not linked equipment
Calibrate your touch device, make it more suitable for your screen.
Calibration
Set your touch device, make it more suitable for your custom.
Setting
In win7, you can set parameters of the multipoint touch.
Multipoint
Reset
Service version: 2.1.3.8

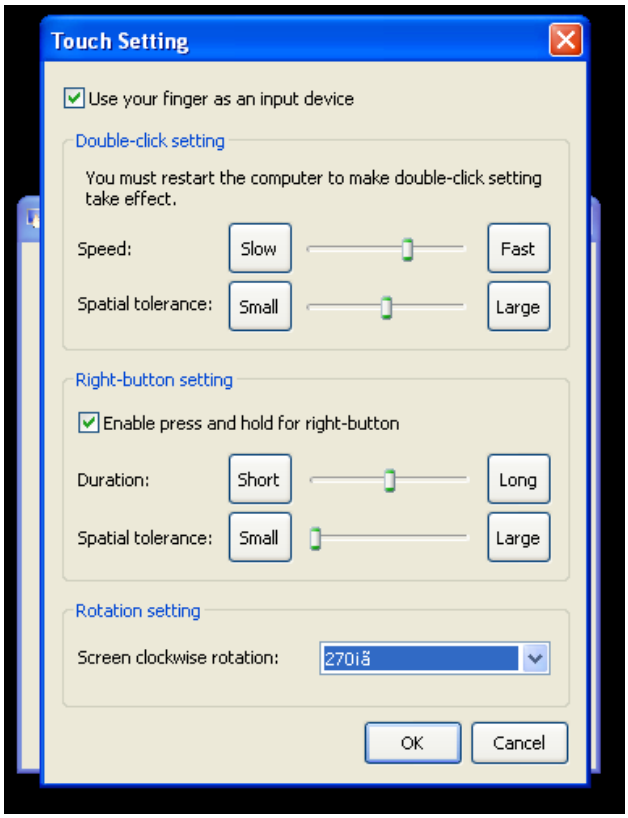
If, however, you see this message you should begin by disconnecting the USB cable and restarting the PC. Once your PC has powered back up launch the Touch Service software and reconnect it to your touch screen via the USB cable, then you should see this message:


Touch Service
Touch Service
Be linking equipment
Calibrate your touch device, make it more suitable for your screen.
Calibration
Set your touch device, make it more suitable for your custom.
Setting
In win7, you can set parameters of the multipoint touch.
Multipoint
Reset
Service version: 2.1.3.8

Give this a few seconds and once the PC has detected the touch screen you will see this message:

Touch Service
Touch Service
Already link equipment
Calibrate your touch device, make it more suitable for your screen.
Calibration
Set your touch device, make it more suitable for your custom.
Setting
In win7, you can set parameters of the multipoint touch.
Multipoint
Reset
Service version: 2.1.3.8

Your PC and touch screen should now be linked interactively. Finally, still using your mouse, click the "Settings" button then under the "Rotation setting" dropdown menu select "270°" and click "OK".



This should calibrate your screen. Your screen should now be a fully functioning touch screen display.

4. Full Range Specifications

Freestanding Infrared Multi Touch Screen Displays			
Display Size	40" (Landscape)	46'"	55"
Unit Size (WxHxD mm)	1040x1070x630	705x1700x127	830x1950x159
Display Area (mm)	887.17x499.66	562.54x1008.35	676.4x1205.6
Aspect Ratio	16:9	9:16	
Resolution	1080x1920		
Brightness (cd/m2)	500		
Contrast Ratio	5000:1 typ	4000:1 typ	
Viewing Angle	178°		
Colour	16.7M		
Response Time (ms)	8		
Colour Temperature	10000k		
Life Time (hours)	50000		
Power Consumption (W)	240	370	450
Inputs	VGA, HDMI, DVI, YPbPr, Video IN, RGB/HV		
Outputs	Video, Audio		
Touch Resolution (interpolation)	4096×4096		
Operating System	Windows7, Windows2000/XP/2003/Vista/CE		
Response Time (ms)	≤16		
Power	<2W		
Ports (inputs)	USB		
Typical Touch Accuracy (mm)	≥5.2		
Voltage	+4.75VDC-5.25VDC		
Operating Temperature	-20°to 60°		
Storage Temperature	-40°to 70°		
Operating/Storage Humidity	10% ~ 90%RH		